AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A negative-type planographic printing plate precursor comprising:

a substrate;

a photosensitive layer disposed on the substrate, the photosensitive layer including a light-to-heat conversion agent and a compound, which is at least one of crosslinkable and polymerizable, with solubility of the photosensitive layer in an alkali developing solution being decreased by the effect of at least one of light and heat; and

an overcoat layer including a polymer, which is hydrophobic and soluble in an aqueous alkali solution

wherein the substrate, photosensitive layer and overcoat layer are provided in that order;

the photosensitive layer is a photopolymerization layer comprising an infrared ray absorbing agent, a radical generating agent, and a radical polymerizable compound which polymerizes with the generated radicals and cures; and

the radical generating agent is at least one onium salt.

2. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, wherein the overcoat layer is formed on the photosensitive layer.

3. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, wherein the overcoat layer does not have sensitivity to an infrared laser.

4. (Canceled)

5. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, wherein the hydrophobicity is expressed by a contact angle with water of at least 50 degrees.

6. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, wherein the aqueous alkali solution-soluble polymer comprises at least one kind of minimum constituent unit including at least one acidic group selected from a group consisting of a phenolic hydroxyl group, sulfonamide group, substituted sulfonamide-based acidic group, carboxylic acid group, sulfonic acid group, and phosphoric acid group.

7. (Currently Amended) The negative-type planographic printing plate precursor according to claim 6, wherein the acidic group has a pKa of no more than 14 and the acidic group is contained in the aqueous alkali solution-soluble polymer in an amount of 0.1 to 12 milliequivalents based on 1 gram of the aqueous alkali solution-soluble polymer.

8. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, wherein the aqueous alkali solution-soluble polymer is a copolymer ~~comprising~~ copolymerized from a compound including at least one acidic group selected from the group consisting of a phenolic hydroxyl group, sulfonamide group, substituted sulfonamide-based acidic group, carboxylic acid group, sulfonic acid group, and phosphoric acid group, and ~~the compound is contained in~~ the copolymer is copolymerized with the compound being present in an amount of 10 mol% or more.

9. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, wherein the aqueous alkali solution-soluble polymer has a weight-average molecular weight of 5,000 to 300,000, a number-average molecular weight of 800 to 250,000 and a dispersion degree of from 1.1 to 10.

10. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, wherein the overcoat layer comprises 30 to 99% by weight of the aqueous alkali solution-soluble polymer.

11. (Canceled)

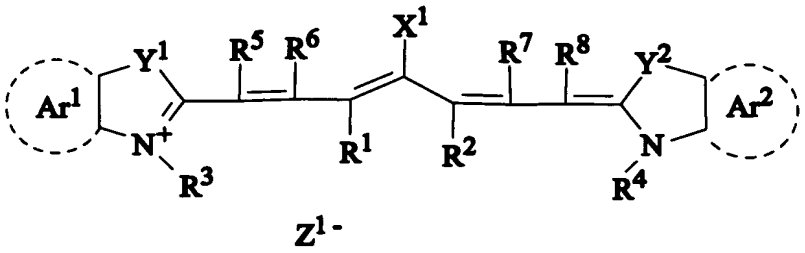
12. (Canceled)

13. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, wherein the onium salt is at least one onium salt selected from a group consisting of an iodonium salt, diazonium salt, and sulfonium salt, and has a maximum absorption of 400 nm or less.

14. – 16. (Canceled)

17. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, wherein the light-to-heat conversion agent is an infrared ray absorbing agent having maximum absorption at a wavelength of from 760 nm to 1200 nm.

18. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, comprising a cyanine dye represented by general formula (I) as the light-heat conversion agent:



General formula (I)

wherein, X^1 represents one of a halogen atom, X^2-L^1 and NL^2L^3; X^2 represents one of an oxygen atom and a sulfur atom; L^1 represents a hydrocarbon group having from 1 to 12 carbon atoms; L^2 and L^3 each independently represents a hydrocarbon group having from 1 to 12 carbon atoms; and R^1 and R^2 each independently represents a hydrocarbon group having from 1 to 12 carbon atoms; Ar^1 and Ar^2 each independently represents an aromatic hydrocarbon group which may have a substituent; Y^1 and Y^2 each independently represents a sulfur atom or dialkylmethylene group having from 1 to 12 carbon atoms; R^3 and R^4 each independently represents a hydrocarbon group which may have a substituent and have from 1 to 20 carbon atoms; R^5, R^6, R^7 and R^8 each independently represents a hydrogen atom or a hydrocarbon group having from 1 to 12 carbon atoms; and Z^{1-} represents a counter anion.

19. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, wherein a substrate is selected from a polyester film and an aluminum plate.

20. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, comprising at least one layer selected from a group consisting of an undercoat layer, an intermediate layer, and a backcoat layer.

21. (Currently Amended) The negative-type planographic printing plate precursor according to claim 1, wherein the onium salt is a sulfonium salt.

22. (Currently Amended) The negative-type planographic printing plate precursor comprising:

a substrate;

a photosensitive layer disposed on the substrate, the photosensitive layer including a light-to-heat conversion agent and a compound which is at least one of crosslinkable and polymerizable, with solubility of the photosensitive layer in an alkali developing solution being decreased by the effect of at least one of light and heat; and

an overcoat layer including a polymer, which is hydrophobic and soluble in an aqueous alkali solution,

wherein the substrate, photosensitive layer and overcoat layer are provided in that order;

the photosensitive layer is an acid crosslinking layer comprising: a compound, which generates acid by being exposed by at least one of light and heat; a crosslinking compound, which crosslinks by the generated acid; and an alkali-soluble polymer, which reacts with the crosslinking agent in the presence of an acid; and

the compound which generates acid by at least one of being irradiated with light having a wavelength of 200 to 500 nm and by being heated at least 100°C.

23. (Previously Presented) The planographic printing plate precursor according to claim 22, wherein the overcoat layer is formed on the photosensitive layer.

24 (Previously Presented) The planographic printing plate precursor according to claim 22, wherein the overcoat layer does not have sensitivity to an infrared laser.

25. (Previously Presented) The planographic printing plate precursor according to claim 22, wherein the hydrophobicity is expressed by a contact angle with water of at least 50 degrees.

26. (Previously Presented) The planographic printing plate precursor according to claim 22, wherein the aqueous alkali solution-soluble polymer comprises at least one kind of minimum constituent unit including at least one acidic group selected from a group consisting of a phenolic hydroxyl group, sulfonamide group, substituted sulfonamide-based acidic group, carboxylic acid group, sulfonic acid group, and phosphoric acid group.

27. (Previously Presented) The planographic printing plate precursor according to claim 26, wherein the acidic group has a pKa of no more than 14 and the acidic group is contained in the aqueous alkali solution-soluble polymer in an amount of 0.1 to 12 milliequivalents based on 1 gram of the aqueous alkali solution-soluble polymer.

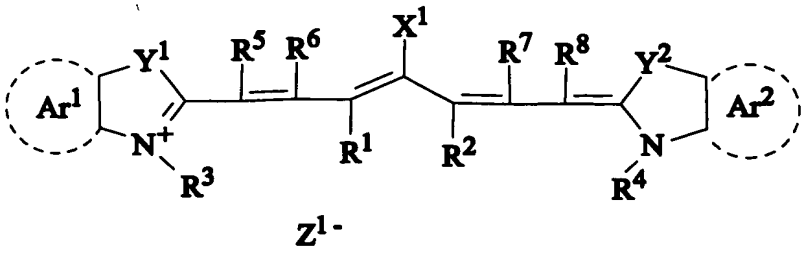
28. (Currently Amended) The planographic printing plate precursor according to claim 22, wherein the aqueous alkali solution-soluble polymer is a copolymer ~~comprising~~ copolymerized from a compound including at least one acidic group selected from the group consisting of a phenolic hydroxyl group, sulfonamide group, substituted sulfonamide-based acidic group, carboxylic acid group, sulfonic acid group, and phosphoric acid group, and ~~the compound is contained in~~ the copolymer is copolymerized with the compound being present in an amount of 10 mol% or more.

29. (Previously Presented) The planographic printing plate precursor according to claim 22, wherein the aqueous alkali solution-soluble polymer has a weight-average molecular weight of 5,000 to 300,000, a number-average molecular weight of 800 to 250,000 and a dispersion degree of from 1.1 to 10.

30. (Previously Presented) The planographic printing plate precursor according to claim 22, wherein the overcoat layer comprises 30 to 99% by weight of the aqueous alkali solution-soluble polymer.

31. (Previously Presented) The planographic printing plate precursor according to claim 22, wherein the light-to-heat conversion agent is an infrared ray absorbing agent having maximum absorption at a wavelength of from 760 nm to 1200 nm.

32. (Previously Presented) The planographic printing plate precursor according to claim 22, comprising a cyanine dye represented by general formula (I) as the light-heat conversion agent:



General formula (I)

wherein X^1 represents one of a halogen atom, X^2-L^1 and NL^2L^3; X^2 represents one of an oxygen atom and a sulfur atom; L^1 represents a hydrocarbon group having from 1 to 12 carbon atoms; L^2 and L^3 each independently represents a hydrocarbon group having from 1 to 12 carbon atoms; R^1 and R^2 each independently represents a hydrocarbon group having from 1 to 12 carbon atoms; Ar^1 and Ar^2 each independently represents an aromatic hydrocarbon group which may have a substituent; Y^1 and Y^2 each independently represents a sulfur atom or a dialkylmethylene group having from 1 to 12 carbon atoms; R^3 and R^4 each independently represents a hydrocarbon group which may have a substituent and have from 1 to 20 carbon atoms; R^5, R^6, R^7 and R^8 each independently represents a hydrogen atom or a hydrocarbon group having from 1 to 12 carbon atoms; and Z^{1-} represents a counter anion.

33. (Previously Presented) The planographic printing plate precursor according to claim 22, wherein a substrate is selected from a polyester film and an aluminum plate.

34. (Previously Presented) The planographic printing plate precursor according to claim 22, comprising at least one layer selected from a group consisting of an undercoat layer, an intermediate layer, and a backcoat layer.

35. (Previously Presented) A planographic printing plate precursor comprising:

a substrate;

a photosensitive layer disposed on the substrate, the photosensitive layer including a light-to-heat conversion agent and a compound, which is at least one of crosslinkable and polymerizable, with solubility of the photosensitive layer in an alkali developing solution being decreased by the effect of at least one of light and heat; and

an overcoat layer including a polymer, which is hydrophobic and soluble in an aqueous alkali solution,

wherein the substrate, photosensitive layer and overcoat layer are provided in that order;

the photosensitive layer is an acid crosslinking layer comprising: a compound, which generates acid by being exposed by at least one of light and heat; a crosslinking compound, which crosslinks by the generated acid; and an alkali-soluble polymer, which reacts with the crosslinking agent in the presence of an acid; and

the crosslinking compound is at least one crosslinking compound selected from a group consisting of: aromatic compounds substituted with at least one of hydroxymethyl group and alkoxymethyl group; compounds comprising at least one of N-hydroxymethyl group, N-alkoxymethyl group, and N-acyloxymethyl group: and, epoxy compounds.

36. (Currently Amended) The ~~planographic~~ planographic printing plate precursor according to claim 35, wherein the overcoat layer is formed on the photosensitive layer.

37. (Previously Presented) The planographic printing plate precursor according to claim 35, wherein the overcoat layer does not have sensitivity to an infrared laser.

38. (Previously Presented) The planographic printing plate precursor according to claim 35, wherein the hydrophobicity is expressed by a contact angle with water of at least 50 degrees.

39. (Previously Presented) The planographic printing plate precursor according to claim 35, wherein the aqueous alkali solution-soluble polymer comprises at least one kind of minimum constituent unit including at least one acidic group selected from a group consisting of a phenolic hydroxyl group, sulfonamide group, substituted sulfonamide-based acidic group, carboxylic acid group, sulfonic acid group, and phosphoric acid group.

40. (Previously Presented) The planographic printing plate precursor according to claim 39, wherein the acidic group has a pKa of no more than 14 and

the acidic group is contained in the aqueous alkali solution-soluble polymer in an amount of 0.1 to 12 milliequivalents based on 1 gram of the aqueous alkali solution-soluble polymer.

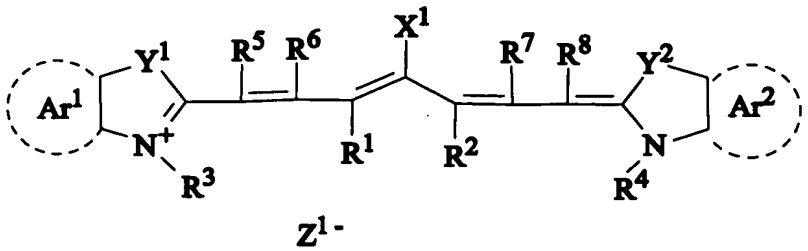
41. (Canceled)

42. (Previously Presented) The planographic printing plate precursor according to claim 35, wherein the aqueous alkali solution-soluble polymer has a weight-average molecular weight of 5,000 to 300,000, a number-average molecular weight of 800 to 250,000 and a dispersion degree of from 1.1 to 10.

43. (Previously Presented) The planographic printing plate precursor according to claim 35, wherein the overcoat layer comprises 30 to 99% by weight of the aqueous alkali solution-soluble polymer.

44. (Previously Presented) The planographic printing plate precursor according to claim 35, wherein the light-to-heat conversion agent is an infrared ray absorbing agent having maximum absorption at a wavelength of from 760 nm to 1200 nm.

45. (Previously Presented) The planographic printing plate precursor according to claim 35, comprising a cyanine dye represented by general formula (1) as the light-heat conversion agent:



General formula (I)

wherein X^1 represents one of a halogen atom, X^2-L^1 and NL^2L^3; X^2 represents one of an oxygen atom and a sulfur atom; L^1 represents a hydrocarbon group having from 1 to 12 carbon atoms; L^2 and L^3 each independently represents a hydrocarbon group having from 1 to 12 carbon atoms; R^1 and R^2 each independently represents a hydrocarbon group having from 1 to 12 carbon atoms; Ar^1 and Ar^2 each independently represents an aromatic hydrocarbon group which may have a substituent; Y^1 and Y^2 each independently represents a sulfur atom or a dialkylmethylene group having from 1 to 12 carbon atoms; R^3 and R^4 each independently represents a hydrocarbon group which may have a substituent and have from 1 to 20 carbon atoms; R^5, R^6, R^7 and R^8 each independently represents a hydrogen atom or a hydrocarbon group having from 1 to 12 carbon atoms; and Z^{1-} represents a counter anion.

46. (Previously Presented) The planographic printing plate precursor according to claim 35, wherein a substrate is selected from a polyester film and an aluminum plate.

47. (Previously Presented) The planographic printing plate precursor according to claim 35, comprising at least one layer selected from a group consisting of an undercoat layer, an intermediate layer, and a backcoat layer.

48. (New) The planographic printing plate precursor according to claim 35, wherein the aqueous alkali solution-soluble polymer is a copolymer copolymerized from a compound including at least one acidic group selected from the group consisting of a phenolic hydroxyl group, sulfonamide group, substituted sulfonamide-based acidic group, carboxylic acid group, sulfonic acid group, and phosphoric acid group, and the copolymer is copolymerized with the compound being present in an amount of 10 mol% or more.